

Laboratory 1

MIPS Software Development

Due Date: 14Feb2020**Name:** _____**Points:** 100 Points
Work individually.

Objective: The purposes of this laboratory are to develop your MIPS programming skills and to continue to developing your proficiency in using the assembler/linker/loader system and its debugging capabilities. In this lab, you will develop assembly source that will be assembled, downloaded, and executed. The MIPS instruction set information distributed in class will be very useful for this software development process. (All class slides and reference materials are posted on UNM Learn.)

Activities: For this assignment, you will write a main routine in which at the end of execution:

v0 = the sum of even positive integers from 0 to 600. **# calculate this sum**

t0 = v0 * v0 **# square the sum**

if(t0 has a greater value than can be represented in a 32 bit word)

v1 = -1

else

v1 = t0

Note: end your main routine with an endless loop, similar to what was implemented in Math.S

Repeat the exercise, but now let v0 = sum of even integers from 1 to 400 and t0 = v0 * v0, as before.

Documentation: Your lab activities must be documented following the guidelines that are provided on the course UNM Learn site. You must demonstrate also that your project functions properly to one of our TAs, who will then sign your copy of this assignment sheet. We have sent out a message which notifies you the when they will be available in the lab to either help you, or witness your success. You may also contact them to arrange for another time to meet, if absolutely necessary, though you are encouraged to start work on the lab as soon as possible to avoid last minute time crunches.

Suggestion: Keep all of your files on a USB memory device as there is no guarantee that any information you store on lab machines will be preserved. On occasion, the machines must be cleaned and reloaded, so any information stored on them will be lost.

TA: Sajay Krishnan

